NATIONALITY AS RHYTHMIC/MELODIC LINE
A STUDY OF FIRST LANGUAGE AND COMPOSITIONAL OUTPUT

by

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I had never thought that I would reach this moment and would like to express my gratitude to my parents, my dearest teacher Menahem Pressler, and my committee, Evelyne Brancart, Jean-Louis Haguenauer, and Mimi Zweig for their guidance.

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CHAPTER 1: LANGUAGE AND MUSIC ACQUISITION

The way our brains learn language is very similar to the way we learn music. Simply put, language and music are both unique in that they share melodies and rhythms.[1] A variety of sounds and combinations of tonal settings add to a language's unique qualities. The same can be found in music when it comes to tone. What comes first, music acquisition or language? It is widely accepted that music is acquired first and prepares the brain to receive the contextual meaning of language, once the melodic and rhythmic lines are established. Musical and lingual acquisition occurs in the same timeline of the developmental stage when a child is 6–12 month.[2] Research has been undertaken to show that different cortex systems develop alongside each other and on the cognitive levels that occur simultaneously. I find that this connection is the single most important connection in our early development that make us who we are as musicians. My research aims to find similarities found between language and music along with finding connections between music to the sounds that each spoken language produces. This paper may help answer questions such as, what are the musical melodies that babies hear when they listen to the first sounds of language? How does it change once they learn the language and listen again? Does it make it more or less obvious for newborns to understand music that has formed from their language?

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[1] Marshack, Alexander. *Journal of Anthropological Research* 52, no. 4 (1996): 539-41. http://www.jstor.org/stable/3630316.

[2] Brandt, A., Gebrian, M., & Slevc, L. R. "Music and Early Language Acquisition." *Frontiers in Psychology*, *3*, (2012): 327. http://doi.org/10.3389/fpsyg.2012.00327.

The effect of the first language spoken on the composer's musical output can be traced through the musical elements of a composer's work. The identity of the music has a lingual foundation which forms from an early age. A sense of home for people has always been very important. When composers have migrated to other countries where the language has not been the same or the culture has varied, many have felt depressed and lost. Amongst those who have felt this way was Russian composer Sergei Rachmaninoff, who almost stopped composing altogether after he left Russia and moved to the United States. The idea of home, therefore, has to do with the language and music that we grow up listening to, and that there is only one home that each one of us gets to experience in our lifetime.

CHAPTER 2: LANGUAGE AS SHEET MUSIC

Language is a way to communicate an idea or a message.[3] Language is a collection of words which express our thoughts and feelings. While music can also express our thoughts and feelings, it is the sounds which leave an impression, rather than spoken words. What makes it human is the connection people may feel along with its hidden or obvious meaning. This is where similarities between language and music can be linked—both have the ability to transfer ideas, emotions, and character. While we like to think that music is an international language, perhaps it is not so. Though music can be understood internationally, intrinsic national characteristics make the assumption of "international language" less valid. Music, however, has many nationalities and is therefore not a language that can only to be understood by those who speak it. A musical connection to a language is deep and evolves during the early stages of one's life. This connection involves rhythmical and melodic qualities of the language heard when someone speaks their native tongue.

The Joint Qualities of Language And Music

Language has a melodic line embedded along with different phrasing.[4] Where in one culture it is common to raise the voice (pitch) at the end of the phrase, in another, the voice remains in its neutral form. Language additionally has a rhythmic base, a tone, or timbre, that changes voice qualities and other emotional expressions that play a role in communication.

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[3] Bicherton, Derek. *Language & Species.* Chicago: University of Chicago Press, 1990.
[4] Gehrkens, Karl W. "Teaching Music and Teaching Language: A Comparison." *Music Supervisors' Bulletin* 1, no. 3 (1915): 12-16. http://www.jstor.org/stable/3382202.

CHAPTER 3: FIRST SPOKEN LANGUAGE AND MUSICAL OUTPUT

Embedded in our brain is our first exposure to the rhythm and fluctuation of the language(s) we learn.[5] Studies have shown that there are a few elements in human cognition that evolve in the very early stages of brain development. A baby's capacity to understand rhythmic structures is adopted in the womb of the mother. It all starts with a heartbeat which is the first rhythmic instrument that human develop. We are later exposed to rhythmic and melodic structures of our native language. While some languages have similar sounds, they are all different. Each language has a unique array of sounds, colors, and rhythms. Even such closely connected languages such as Ukrainian and Russian, still have a significant different musical line.

To find these elements in music is straightforward—listeners do it all the time. Most of the time we cross-connect the elements between two or more cultures. Since music notation gives a lot of breadth to the performer, the performer has to fill a missing gap. Music performers will most likely not find consensus on whatever this gap may be. Filling a gap between notation and tradition can be ambiguous and includes reading the music simply as it is written, without adding cultural or folk elements. Playing music as it is written is often seen as uncreative by musicians; playing like a copy machine might be a relevant metaphor here.

When an experienced professor asks a student to play a piece of music exactly how it is written in the score, it means that they would like students to understand the musical language

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[5] McMullen, Erin and Jenny R. Saffran. "Music and Language: A Developmental Comparison." *Music Perception: An Interdisciplinary Journal* 21, no. 3 (2004): 289-311. doi:10.1525/mp.2004.21.3.289.

and origin of the piece, and play it in its original and correct form. We can assume that the performer will add his own understanding of the style and score along with other elements of the music. Knowing the score is similar to how one would understand a language. Reading a word or pronouncing it means that you know the context behind it, and having the stylistic knowledge is akin to understanding how it is a language ought to be spoken.

Being able to read Shakespeare not only requires one to practice his work out loud, but requires one to understand the context of a play along with the emotional states of the actors or characters. Reading the text as it is written on the page, with no understanding as to its background or context, even in the right tempo but without vertical rhythm or an understanding of who is speaking or one is, does not create the most compelling performance. It can all become very confusing to the audience and the actor. The same process occurs in music. The distraction of music itself is enough, even if the real content is missing. One can imagine a beautiful case which is empty to be a relevant metaphor.

The Organization and Form of a Language

Structure in music is our map which leads us through harmonies, phrases, time signatures, and keys. Structures, or musical forms and aesthetic norms, change with different historical styles and periods. Rhythmical organization of elements of form is unique in every language. Often while it can be translated, its inner meaning becomes lost. This is because language not only carries a direct meaning, it also affects the aesthetic and cultural aspects found in language barriers. Each language in itself has different ways to produce “arousal/activation” functions.

1. The first dimension in music achieves a biological connection by delaying the material, creating dissonance, and resolving them. This varies from language to language.

2. The second dimension frequently describes the use of energy, often connected to excitement and an internal activation, and is attributed to tempo, color, rate change, and intensity.

What we see is that our natural tendencies to interpret music as musicians depends on our musical education and our evolution as humans. We can learn from other art forms from the music directly. Our musical world and our social world are interlaced, as they are both full of interactive and intricate connections, telling stories about people and their cultures. The borrowing of material and the affect that one has on another inspires us and makes music a relevant part of our lives. We can learn so much about a musical piece by simply knowing a composer's background along with their views and interactions with other people. Musicians can often discover more about the musical composition from places outside the musical world.

CHAPTER 4: FOLK MUSIC AND LANGUAGE ORIGIN

When it comes to finding the origin of folk music, I wonder if musicians can call 'folk genre' as the original genre of music and whether we, as musicians, can define a country by its folk music. Since a great deal of folk music is transferred orally, evidence is based on the preservation of oral traditions. Since traditions are prone to change, music can reflect this and adopt other influences, as in the eclectic mix found in folklore. In many cases, the influx of visiting musicians affects the style of music. In the case of J.S. Bach, we can trace elements of the heavy Italian influence in his music. In most instances, the Italian influence is adopted in the slow movements of sonatas and concertos. The complete effects of cultural integration are hard to trace. Musicians can know if the effect created by the adaptation of style is far-reaching. It was not contained in the walls of the church or the palaces. The folk music effect reached every house and business. With future generations becoming a part of the culture, folk music was accepted through songs, gatherings and dances. Folk music has been preserved from father to son, or from foreigners who would come and bring a new twist to an old song. The new ways of playing the melody would be developed over long periods of time and would become similar to a dialect of a specific region or country. A similar connection can be found with musicians who gather together to play and develop their approach and ornamentation to understand and mimic traditional songs.

Performers have consequently been able to see the original notation and hear other performers' interpretation of a musical piece. Composers use music notation, as a language for communicating and as a blueprint for interpretation. The performer's interpretation, furthermore, is the finished product. When a musician develops their interpretation, they make about 60%

more decisions that are not in the score. It is a difficult task and takes a great deal of thought, preparation, and work to achieve results which can be repeated for future performances. By the time a musician has interpreted a piece of music, it is not easy to reverse-engineer their interpretation. Their experiences and knowledge of traditions and culture cannot easily be perceived. The nuances of interpretation of a musician's composition or through their oral tradition are passed down through generations, with nuances lost over time.

Finally, the impact of folk music on interpretation stems from that fact that it has been passed-down through generations orally, and cannot be attributed to a single composer, but rather to a culture, language, and society. Furthermore, western music notation is not capable of transferring all the nuances of folk music. While yes, we can create a score, and use the right notes, rhythm, and other qualities of music, we lack something fundamentally important to music. It takes years to learn how to perform challenging music and to read a particular piece of music in a way that was intended by the composer and their culture. Musicians strive to learn the 'soul' of a piece, so to speak, that is integral to a musical composition. The music teaches us the homeland of a composer, its beauties, and qualities.

At the same time, music performers play the equivalent of a broken telephone: getting further away from the music's original message in trying to connect with the composer's inherent cultural roots while also decoding a highly faulty system of notation. Surely, the notation system is still lacking in its abilities compared to spoken oral traditions. This is precisely the point, i.e. the oral translation of music is the very same system found in language. While the western notation system was still in development, many countries still relied on oral traditions to pass on musical language. Songs were a part of the common people's life and a part of everyday

activities. Most of these songs that people had in their life were connected to text or were embedded in text.

My research aims to focus on how first sounds make an impression on a composer's style and how it is the language they learn affects their compositions. Musicians are still puzzled by how one's first language becomes embedded in one's cognitive being, and why other languages that are learned later have a lesser effect on musical compositions. While we can add many languages later on, the first language learnt is the most critical to understanding a musician's compositional style. This is where music for each of us is shaped, and where the language connects with our feelings. It shapes our soul into the intonations and rhythms of our communicative style. How sound frequencies affect the brain in such profound ways is not understood and is a subject matter for future research. The first sounds one hears shapes our brains and identities. The folk elements in music are based on this exact notion: that what brings out the most in us connects to our heart and soul like an additional part of our body that we did not even know was amiss.

CHAPTER 5: THE RUSSIAN LANGUAGE AND ITS PROPERTIES

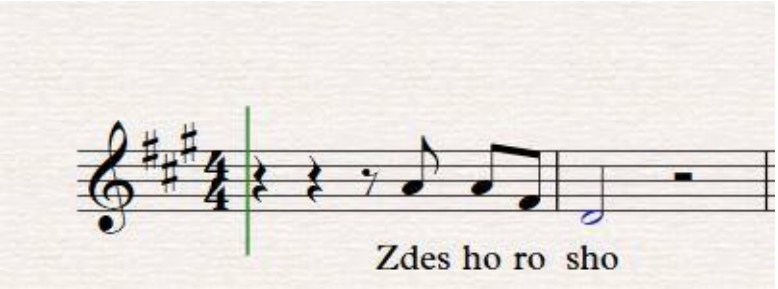
The Russian language is a free-flowing river and has no end. It is directly connected to emotions and is considered melismatic. It can be described as smooth and soft, and not nearly as hard as English or German. It carries many emotions within its foundation and rhythm. The Russian language has numerous dialects. It has a very individual way of speaking and coloring words. It can quickly switch between formal and informal speech. The words themselves carry an extra melodic and rhythmic meaning, as with notable changes of intonation, when one speaks of nature, for example. Russian often provides a double definition of meaning in common sentences and sometimes has untranslatable poems and speeches. Double meaning refers to the various hidden meanings found in certain expressions and intonations. How one articulates a phrase, furthermore, can also contribute to how Russian is understood.

Language as a Musical Line

Language and musical melodies both have shapes. In language, the range and the shape of a melodic intonation are determined by many factors. Among them, the meaning and intention of the speaker. The same line redirected in a different shape can mean something entirely different. For example, take the English sentence, ‘I feel very close to you’. If the word ‘close’ goes up in intonation, this can result in the speaker sounding doubtful. If the word ‘very’ is stressed, the entire sentence might come across as sarcastic. Rachmaninoff’s piece can also be used as an example to note how emphasis changes meaning.

Example 1.0 Rachmaninoff, "Sdes Horosho," mm. 1-2, voice melody.

What if the melodic line goes down instead of up?



Example 1.1 Friedberg

In Example 1.1, the meaning changes. This does not mean that the melody decreases in increment. Taking Bernstein's phrase = word, we can see that the same word can be musically depicted with many different phrases. While we can try to prove that word = phrase, the proof that phrase = word is much more difficult. My belief is that music is more connected to the language one learns first rather than languages learned after one's native tongue. The language line contains tone, rhythm, and time. It is a means of communication amongst people. Our first language is very natural to us, and in most cases it is the language we think in. It is deeply embedded in us and how we see the world. When those rhythms, sounds and tones come back to us, we feel at home once more. As a composer, this world is hidden inside of us, and comes out when we compose.

Extras vs. Less

It is commonly implied that more instructions in a musical score is better than fewer instructions. Musicians can notice what is missing quicker than when something is added to an abundance of instructions. In my opinion, a substantial amount of musical instruction is not necessarily better than fewer. We need only an exact amount to be able to transfer the right balances of flavors and add the right amount of character. In music we want to preserve the beauty of the colors, the characters, and the right balance between voices. Musicians additionally want to preserve something that is natural and not completely controlled.

It is often clear to the audience if a performer is nervous. The appropriate dynamics and musical articulations start to stutter and are disregarded. The music, instead, is exaggerated and loud, musical expressions that were not planned begin to emerge, and intricate details are lost or forgotten. Music can sound flat because of over-producing and a musician's over-expression. An optimal music performance requires balance; everything must be 'just right' to achieve the perfect balance of sounds and expressions. The storyline and characters should remain intact so that the music can take a natural and exciting turn. When each character is exaggerated, we have little to no contrast and expressive effort is in vain. If all the characters in a story begin to scream in unison, balance is lost. This happens often in live performances with a great deal of aerobics and acrobatics. The visual representation is present but limits the performance to a showcase rather than a meaningful and enchanting story.

In language, if we exaggerate things too much, communication can also become problematic. The quality of discourse can quickly become irrational and fiery. While some actors and musician get their inspiration from the stage, relying on that extra something that is in the air; others prefer to make a studio recording or make a movie where they can prepare and control

the outcome of their performance. Either way, in the end, they are looking for the same range of emotions, feelings and characters.

Properties of Russian

Russian music and language share many similarities. Amongst these commonalities lie their long-arched phrasing. With soft lines flowing along sentences and consonants being less articulate, whole sentences seem to flow like one musical line. Russian music and its language can be described as sweet and calm with the capacity to sound corrosive too. Russian music is similar to this and also resembles the language structure and cultural of different regions.[6] The evolution of language in music has been interesting to see, with the music mentioned by Plato—as having the deepest effect on people—lost. In the Romantic period, music incorporated both text and imagery, and attempted to inspire an emotional state in the audience. The Romantic period could not have occurred without Schumann, Mendelssohn, and Brahms—all of whom changed the world of music with pictures, motion, and text. Russians were influenced by German musical culture during the Romantic period.

Russian Melody (Developmental)

Russian melodies have extremely long melodic lines that have the appropriate elements to create an entire piece of music. They are rarely repetitive and more developmental, which is a major part of their structure.

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[6] Plato *Phaedo.*

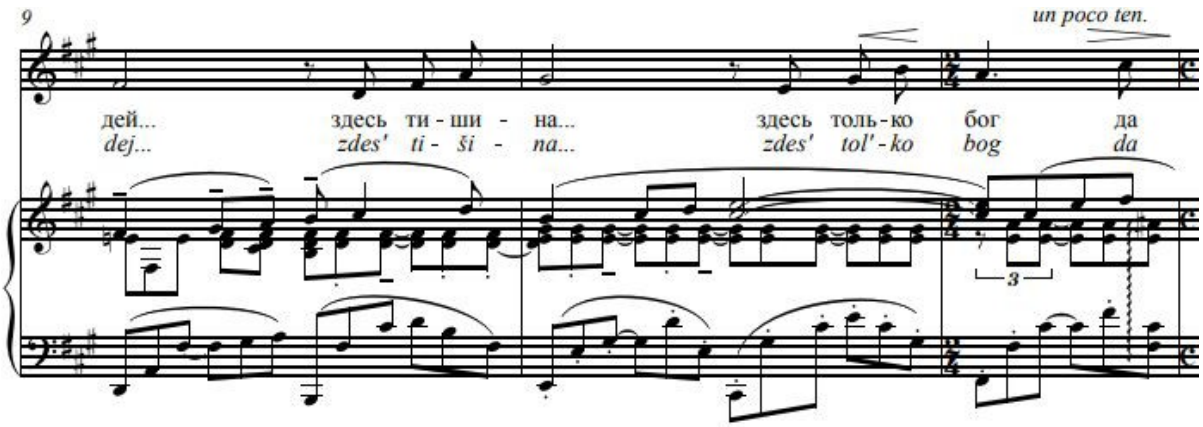
Example 1.2 Rachmaninoff, "Sdes Horosho," mm. 1–4, voice-melody.

This example shows a long Russian line, laid down by Rachmaninoff. Russian-styled music includes repetition which is used as a sort of sequence. The sequence becomes a part of the melody. The tune itself can be described as ornamental and can be considered a full sequence.

Example:

Example 1.3 Rachmaninoff, "Sdes Horosho," mm. 9–10, voice melody.

While the melody is dominant throughout the entire song there is also a contra-melody. The contra-melody can be even more beautiful than a primary one; see Example 1.4.



Example 1.4 Rachmaninoff, "Sdes Horosho," mm. 9–11.

The Russian language is a descriptive language and its sentences are usually long and carry a lot of information. For example, if one says 'vchera bulo tak horosho, davaite segodnya tozhe poidem na prirodu sdelat piknik' translated to 'yesterday was so good, let's go out in nature and have a picnic again', this could be said in one sentence, 'let's have a picnic today too'. In the Russian language, however, this shortening of the phrase is not sufficient. You have to express your emotional state at all times. The point is made similarly through musical expression where phrases are elongated and often can have meaning that is not immediately apparent. Clarity in the language emerges after one reads the entire paragraph. Then the sense of the emotional impact appears. This is another reason why Russian is hard to translate, the usage of metaphors and expressions are a significant part and are difficult to learn.

Rests

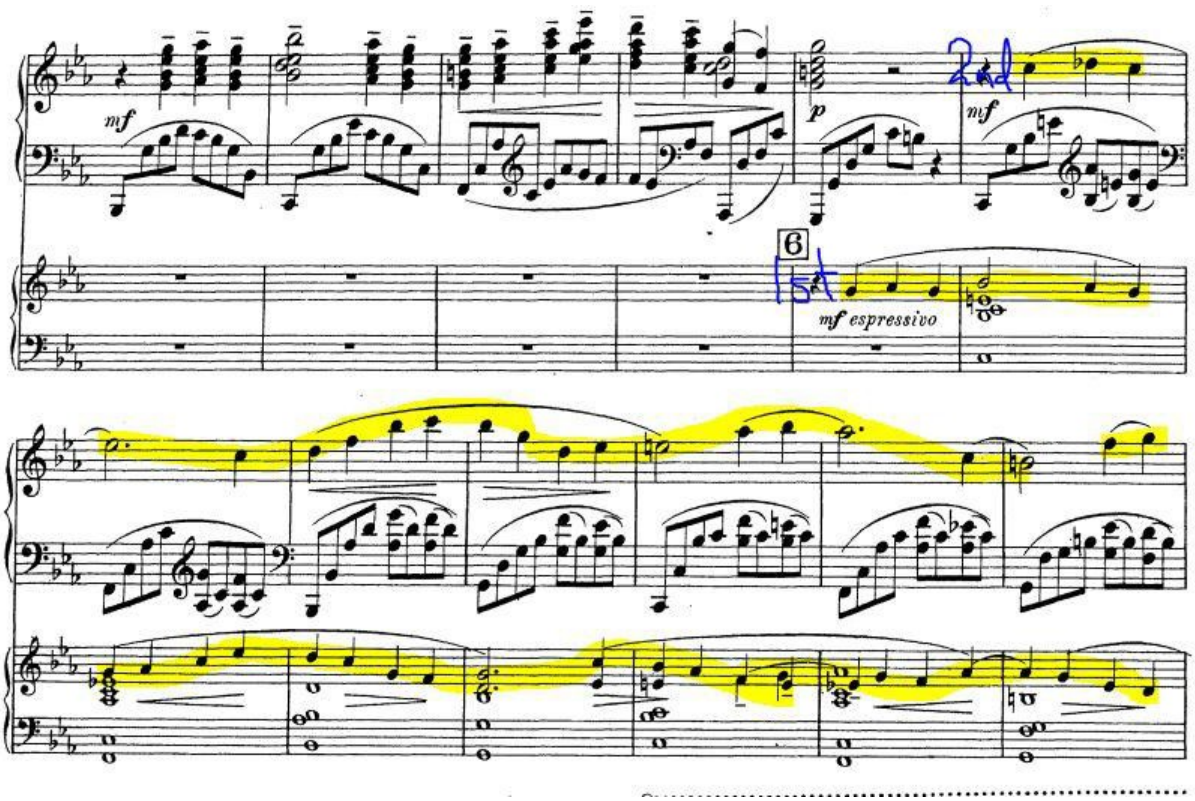
The Russian language has almost no, or very few, rests, while the melody is continuous. In Russian culture, silence can connote anger or dissatisfaction. Contrastingly, this interpretation cannot be applied in Russian music, as this would limit the use of breaks in any given phrase.

Silence, however, does not connote anything bad per se—it is rather the absence of something.[7] The people who use silence a lot in our world are very influential people and can include politicians and CEOs. They have all learnt to control their timing of sound and silence. I remember a story that David Baker told us in his class on Duke Ellington, where the opposite was true. He was showing us how Duke Ellington's form in composition started to evolve and that he started composing longer pieces of music. One of the most challenging things for Ellington was how to use rests. He simple did not know how to use them in a natural way. In Russian, romantic music uses rests for the sake of musical advantage. With rests, flowing musical lines are remembered and admired.

The Double Conversation

Conversations in Russian involve many subjects speaking at once. In Russian music, however, phrases are not often repeated, with the form of a piece being like a free improvisatory fugue. It is common to have a conversation where both voices (parties) are speaking at the same time and occasionally agree amongst themselves—though there is no act of silent listening. In music, double conversation creates the most beautiful primary and secondary voice. In Example 1.6 below, we can see how the first and second voice is performed, with beautiful melodies being heard in both. This in turn resembles the style of conversation in Russian.

[7] Margulis, E. "Moved by Nothing: Listening to Musical Silence." *Journal of Music Theory* 51, no. 2 (2007): 245-276.
Retrieved from http://www.jstor.org.proxyiub.uits.iu.edu/stable/40283130.



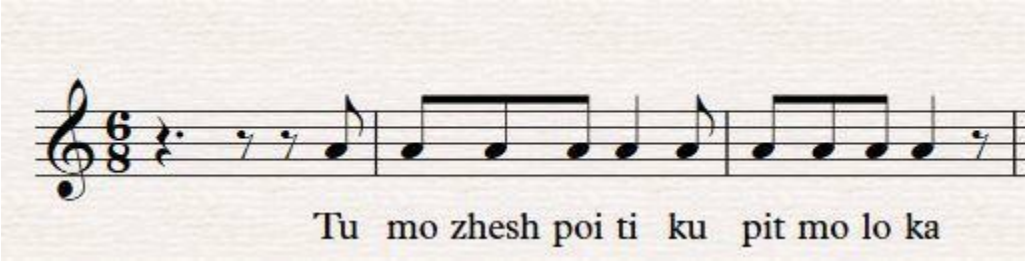
Example 1.5. Rachmaninoff, Piano Concerto no. 2, I, mm. 223-241, piano, clarinet, oboe.

CHAPTER 6: THE RUSSIAN LANGUAGE AND ITS RHYTHMICAL PROPERTIES

Each language has its separate rhythmical properties. Those properties act as a delivery mechanism to convey the aesthetic and cultural aspects between people. To describe these properties, I will speak of them in musical terms.

Request

In the Russian language, the usage of time signature changes depends on what context it is being used. In the situation of 'the request' the syllabic tempo is typically quicker. Note, for example, the downbeat falling on the second syllable request (see Example 1.a and 1.b).



Example 1.6 Friedberg, mm. 1-3.

6/8 "Tu Mozhesh poiti kupit moloka?

Example 1.7

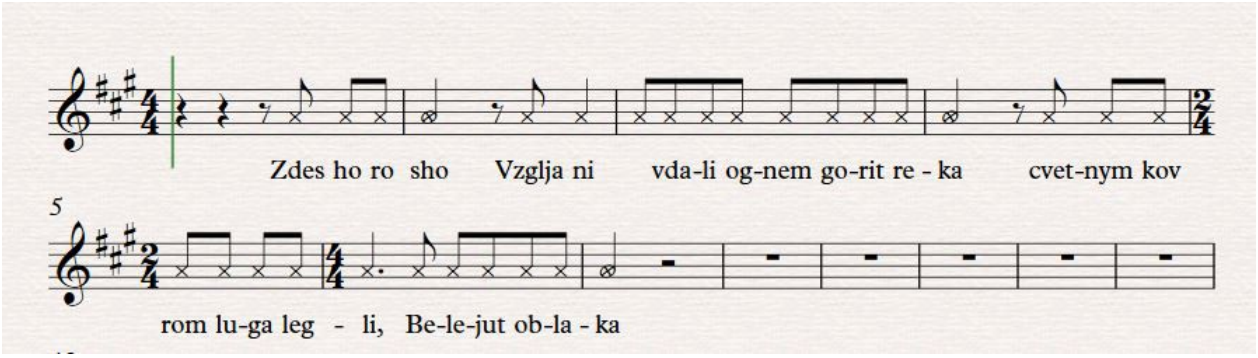
The bold font represents downbeat and the green represents a pickup value (see Example 1.b).

Observation

In this part the sentence is ‘observational’.

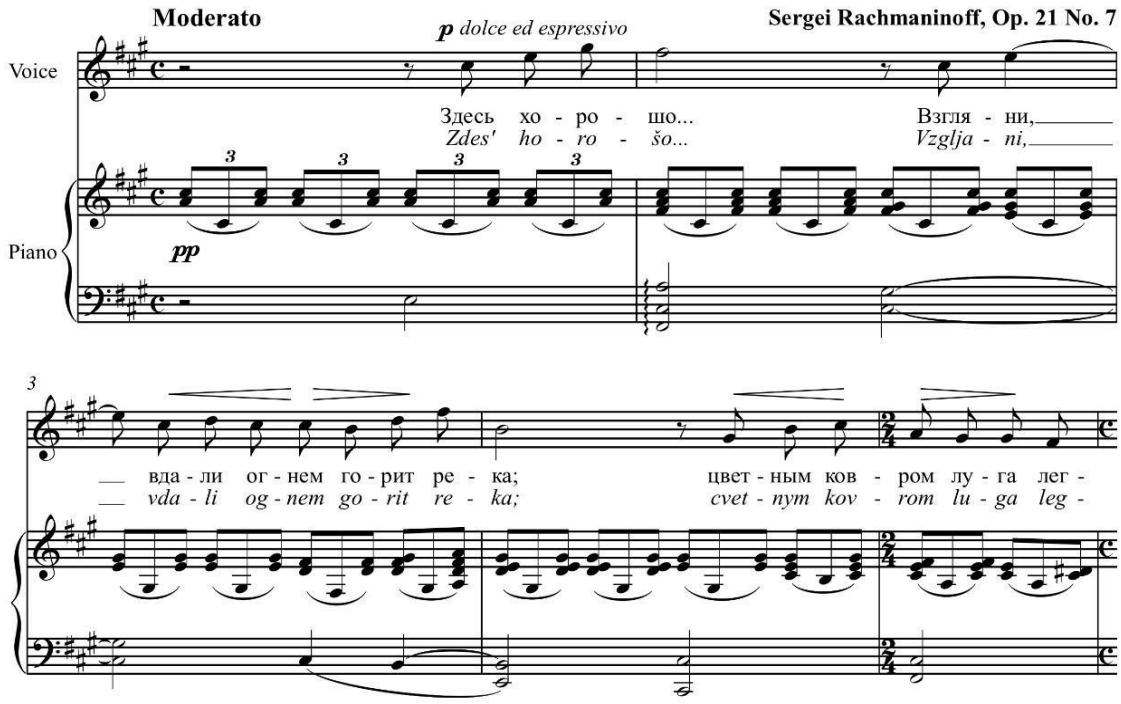
Example 1.7. Friedberg mm. 1

Notice that most Russian rhythms are not on the first syllable but are always as a pickup to the downbeat. The time signature of the observational state is 4/4 common time. In Example 1.7, the person is saying “I love watching you.” Now let us take the words from Rachmaninoff’s song “Sdes Horosho”—another conversational statement (Example 1.8).



Example 1.8 Rachmaninoff, rhythmical value, mm. 1-6.

The meter of the text is 4/4, ‘Sdes Horo**sho** Vzglyani | vdali ognem gorit re**ka**’.



Example 1.9. Rachmaninoff, "Sdes Horosho," mm. 1-5, full score

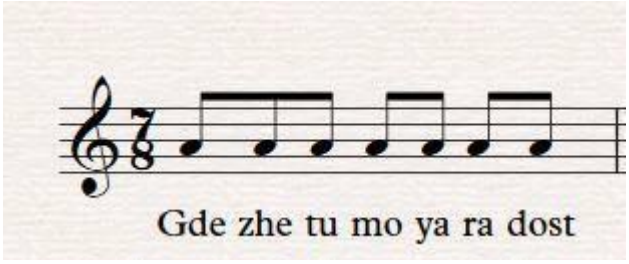
Rachmaninoff's setting of the text 'sdes horosho' adds a triplet note value without changing the musical flow in order to create musical friction within the time signature (see Example 1.9).

Example 2.0 Tchaikovsky, "Nam Zvezdu Krotkie Snayli" mm. 1–8, full score.

To confirm my findings, note the following example:

"4/4 Nam **Zve**zdu krotkie si**ya**li" (see Example 2.0) again the time signature used is similar to the one used in Example 1.9.

Sarcasm



Example 2.1. Friedberg, mm. 1.

The phrase "Where are you my sweetheart?" could be expressed as a question or a statement. The time signature is 7/8 and the character of this sentence is undetermined—it could be read as self-pitying or sarcastic (see Example 2.1).

Example 2.2. Friedberg, mm. 1.

"Why are you so far?" is where the sentence falls on the particular time signature 7/8. (See Example 2.2.)

Complaining

Example 2.3. Ilya Friedberg. mm. 1.

In most examples when one complains in Russian, sentences become rhythmically even. With these particular cases in mind, the pickup note disappears and the time signature reflects a long pattern of notes in 9/8.

Example 2.4 Tchaikovsky, op 60 no.6 "Nochi bezumnue, nochi bessonue" mm. 1–10, full.

The piece is in 9/8 and the lyrics read "**No**chi bezumnue, **no**chi bessonue." The translation is as follows: "Crazy nights, sleepless nights." The character is in a crisis state and this example falls in the complaint category. In previous examples, the time signature demonstrates that rhythmical properties of the Russian language carry a psychological expression. The complex system of rhythmic interpretation in Russian consists of several models. In an observational state, the speaker does not take what occurs as part of the situation.

Observational state reveals a common time signature of 4/4. It is a default time signature of the person who is not stressed. The connection between time signature and the attitude can be traced once the character changes and we introduce a different attitude to music, such as a dilemma, the use of sarcasm, discontent, or a change in time signature.

Rhythmic Music vs. Rhythms Found in Texts

Rhythm in music can be looked from many sides. Let me start by articulating some issues that are connected to the topic of a first-learned language and its connection to musical output. Rhythm is not a pulse or a beat but rather a combination of both. It is a multi-dimensional tool that we use to connect to the biological parts of life. The rhythm in music is what musicians refer to as time/space sensation. The lateral rhythm is what we perceive and can articulate, the larger vertical rhythm is the form and progression of events in the piece. It is the small nuances in time and the frequency of events in the piece. Rhythm in music is poetry in the text and can mark the difference between reading Shakespeare or instructions for your toaster. In music we see how long each harmony is held along with dissonances and the resolution. This includes how many times the composer repeats the same material along with the thematic progression of the piece, including the length of the phrases and the repetition of the material.

Language is a direction and can be compared to a musical score, with each composer having their own communicative style. Every composer has a set of embedded rules that are unique to them. When we talk about performance, we are talking about another dimension where a performer takes charge of the score and adds all their interpretative insights to it. This in turn is the final output. The same can be said with respect to how certain poets can employ language in writing a poem. Similarly, one can speak English though with variations in accent and

vocabulary. Some people speak with more rhythmic nature and some with fewer consonants. This in turn affects how a language is heard and the audible effects it may have on listeners.

Use of Open Vowels and Consonants

Vowels in music are very important. This is particularly true in singing where vowels are the only way a person can sing anything. All vowels are produced with the open mouth, and allow air to escape. Air means sound and sound means singing. Try to sing with a closed mouth and you will understand how vowels are essential to every language. Some languages have more vowels than others and are therefore easier to sing. Vowels are responsible for the tone and beauty of the melody, and consonants are what provides music with its rhythmical qualities. Sometimes a language is referred to as “musical” and “non-musical” exactly because of the structure of vowels and consonants and their respected vocabulary. In Example 2.5, every sentence ends on an open vowel. Ending on a vowel lets the singer connect the phrase smoothly without interruption.

Example 2.5. Rachmaninoff, "Po Utru,Na zare," mm. 1–3, full score.

Here is another example of how the Russian language is set. The vowels are set on the dotted half note, and the singing lines start with sounds (PH or N) which defines the sentence (see Example 1.e). Knowing the words of the song helps musicians determine how long or short the notes must be held for. One of the most important attributes is also knowing that words can help interpreters understand the beginning of each sentence or musical line. If we start a sentence with Russian sounds (PH) there can be a very subtle approach to the first note. If the first letter of the sentence is K, R or G, the beginning portion of a sentence is accented.

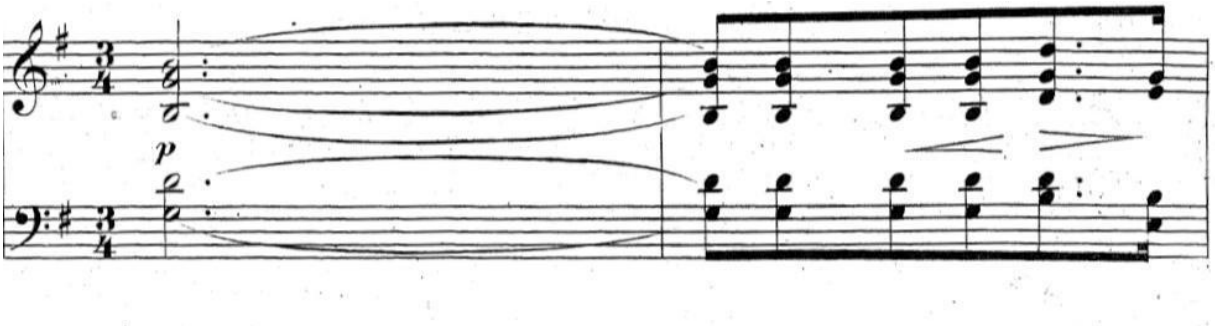
Example 2.6. Rachmaninoff, "s-svoei pohodnou klukoi," mm. 1-3, full score.

In Example 2.6 the words are "s-svoei pohodnou klukoi" where the use of consonants needs to express a strong rhythmic pulse. The beginning of the phrase must also begin with clarity and definition.

CHAPTER 7: BORROWED MATERIAL AND REPETITION OF TEXT IN MUSIC

Example 2.7. Schumann "Dichterliebe," IV, mm. 1-2, piano, vocal.

This example demonstrates the idea of when the melody is transferred from one instrument to another. The piano part repeats the same melody in canonical form, agreeing with what is being said or sung by the singer. Will the interpretation of the material remain the same if the material appears outside the vocal work?



Example 2.8. Schumann "Dichterliebe," IV, mm. 1-2, piano only.

From Schubert G major fantasy sonata:

Example 2.9. Schubert - Piano Sonata G major no.18 D 894, mm. 1-2.

Amongst the various commonalities in both examples are the following: the key and intervallic reach are similar; and the reference shows us that the material is not just ink on paper but is conveyed with intention. Additionally, the language is that of the composer in each example. It means something when Schubert leaps a third up and descends. Finding musical references helps performers better understand a composer's native language and, most obviously, their music too.

Example 3.0. Schumann "Dichterliebe," XV, mm. 64-67.

Here, musical references can be found later as a piano interlude,

Example 3.1. Schumann "Dichterliebe," XVI mm. 55-57.

The material is reused, and elaborated on, which is very common in language. We can take the same phrase but change its inflation, which in turn will change its meaning.

Variation A: Perhaps I can do it.

Variation B: Perhaps I can DO IT!

Variation C: Perhaps…I…can…do it.

These expressions involve the same phrase, though with different stresses in each sentence. With differences in where emphasis is place, the meaning of the phrase changes. If we are to look at the words or the phrase in isolation, without any emphasis written, the meaning of the expression does not change. We can understand the above example only through the rules and attributes that are unique to English.

CHAPTER 8: READING LANGUAGE VS. READING MUSIC

I find that language understanding and language reading has evolved much further than music reading and performance. In certain ways the musical understanding and development stops the moment when we try to explain music with sounds and mathematical formulas, ignoring the human context. It has resulted in the alienation of classical music from general consumption and has placed classical music in an elite culture. We can read language in a variety of ways. When it comes to reading for example, we begin by reading one word at a time only to see how they connect in a complete sentence. Words and expressions can very easily be taken out of context however. Unless one understands the entirety of a story or phrase, furthermore, one cannot understand the words in isolation. The same can be expressed for music too. Music can be read as individual notes, or in a piece's entirety. Playing just one note, however, fails bring meaning or understanding to a piece of music. Without understanding how each note fits with one another, a piece of music is only partially understood—if it is to be understood at all. The analogy can work with language as well. One does not simply look at one letter at a time, but rather reads an entire sentence or phrase till completion. The language of music, furthermore, is a language that can be used to communicate with people, with each piece providing a story that ought to be understood in its entirety. Music can also be understood as a physiological reaction, given that it enters our bodies with frequencies and sound waves. It has the potential to affect our blood pressure, can change our moods and temperature, and our well-being.

What do we need to do to train ourselves to read music closely? As musicians we need to know where the origin of the composition originates along with what language the composer spoke as a child. Understanding their cultural upbringing can further allow musicians and music

theorists to understand a piece's history and cultural context. We need to know that the combination of notes connote something critical to the composition's overall meaning. As a first step, we can try to follow the general rules of a lingual sentence. Later we can attempt to become a co-author and deliver the message. For this we not only need to know how to read the words, the sentences, and the story line, but we also need to make our storyline clear. Can a performance be considered convincing if the composer does not think or compose their piece meaningfully or with an eye to the composition's overall meaning? The short answer is no. The piece will not be convincing or meaningful otherwise. For many composers, however, following their ear can give them an edge to compose a meaningful piece of music. A composer essentially retells stories and makes references to existing stories.

CHAPTER 9: BORROWED MATERIAL EXAMPLE BETWEEN INSTRUMENTAL AND VOCAL MUSIC

In this section we can see an interesting pattern of materials being reused. There are certain things that we can learn from looking at how the composer has decided to set them up and to obtain a greater personal understanding of their meaning.

Example 3.2. Schumann's Sonata no.1 Fis Moll, op 11 Aria mm. 1-4.

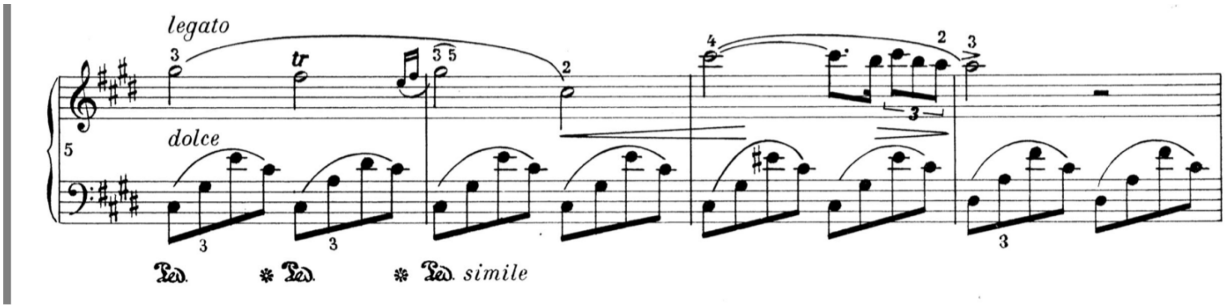
In the example from Schumann's sonata, it is evident that the material is borrowed from an art song. The melody in the soprano line is the main focus of the composition and the continuous harmonic accompaniment supplies the harmony. Despite the words being amiss, the mood is still present. There are a few ways we can look at the similarities and how this sonata can be performed. A musician could retain the same character as the original piece with only slight modifications, or they could maintain the same expression as the original.

Example 3.3. Schumann "An Anna" Serie 14 no.2, mm. 1-4.

Beethoven's Op. 109, as evidenced with the example below, has great texture. The right hand acts as a singer while the left provides harmonic substance.

Example 3.4. Beethoven Op. 109 var. 1 mm. 1-7.

Here is a similar texture used in Chopin's Nocturne,



Example 3.5. Chopin "Nocturne," mm. 5-8.

In both cases, the melody is sung by the right hand with the accompaniment written for the left. Here is another example from Brahms' Violin Sonata op. 78 and op. 59,

Example 3.6. Brahms Violin Sonata no. 1 op. 78 3rd, mm. 1-2.

Example 3.7. Brahms Song op. 59 no.4 Nachklang mm. 1-3.

While in song, Brahms' usage of note values is different, with the main motive remaining the same. However, the song is in cut time and the sonata is in 4/4. I assume that the tempo of the melody does not change, and perhaps the difference between the two stems from Joachim's violinist's advice or placement of the movement in the piece. Understanding the character and the origin of the music's thematic material helps us understand the composition's context and connections the music shares with the composer. Even if the music changes, musicians can still be able to discern the journey of the musical piece and its layered meanings.

CONCLUSION

I have always wondered what makes music such a silent companion in our life. It seems to affect everybody and each individual finds a personal and unique way to incorporate it in their life. How is music different from language? Is it self-contained information? Is it in a particular style? How many directions can it include? The meaning and the content comes from a language's DNA and fundamental fabric. Our brain acquires language and music at about the same time and they grow together like twins that have been born a few minutes apart. The effect of the first spoken language in our lives has lifelong effects. It affects how we listen and in which language we think. The gap grows bigger to the point where language and music become a part of our subconscious.

Language carries so much more beyond the words themselves. We have embedded many social norms in language, along with nuances related to humor, aesthetics, social norms, and ethics. It is true that language goes beyond words or the sounds found in syllables. It carries with it the DNA of its people—i.e. those who speak the language. Language also conveys the ways of society, via laughter, crying, and happiness. Does one need to speak the original language of a poet or writer, for example, to understand the works of Shakespeare, Goethe, or Dostoevsky? Does one need to speak Russian to know how to play Prokofiev? Or live in Hungary to play Bartok? The answer of course is no. Music can transcend a culture and take shape for whoever wishes to play proficiently. Playing and listening to music and understanding a piece's historical context can provide a person and musician with knowledge concerning a composer's background and their musical legacies.

In my work, I have been thrilled to find new evidence that the first language one acquires has a deep impact on many aspects of human development. Specifically, the way the human brain accepts the sounds of a language and music and how they are used later in life, via musical compositions. It is equally as interesting to note how those rhythmical and tonal qualities of speech define how we hear music and how we react to certain musical genres. I found a direct link that connects spoken line to a musical line, spoken rhythm to a musical rhythm and how these concepts interconnect.

It is my sincere hope that these connections and findings can aid musicians in continuing to produce expressive music. Or perhaps to encourage more research in areas which have not yet been explored regarding the connection of spoken versus musical language. With respect to language, this paper has attempted to argue that it carries rhythmic foundation, melodic line, and pitch (tone) and that the ways in which language functions in music are direct and relevant. The discoveries fit the music of the Russian language and are also applicable to other composers who are native Russian speakers. My hope for this paper is that it will provide readers with the inspiration to continue researching the hidden connections between language and music. I hope too that future research delves and explores the various connections found between a composer's native language and the musical compositions they have produced.

BIBLIOGRAPHY

Arbib, Michael A. *Language, Music, and the Brain: A Mysterious Relationship*. Cambridge, Massachusetts: The MIT Press, 2013.

Berlyne, D. E. "Curiosity and Exploration." *Science* 153, no. 3731 (1966): 25-33. http://www.jstor.org/stable/1719694.

Bickerton, Derek. Review of *Tools, Language, and Cognition in Human Evolution* by Kathleen R. Gibson, Tim Ingold. *Anthropological Linguistics* 33 (2). 1991: 226–27. http://www.jstor.org/stable/30028195

Bigand, Emmanuel, Philippe Lalitte, and W. Jay Dowling. "Special Issue—music and Language: 25 Years After Lerdahl & Jackendoff's GTTM." *Music Perception: An Interdisciplinary Journal* 26, no. 3 (2009): 185–86.

Daniele, Joseph R., and Aniruddh D. Patel. "An Empirical Study of Historical Patterns in Musical Rhythm: Analysis of German & Italian Classical Music Using the Npvi Equation." *Music Perception: An Interdisciplinary Journal* 31 (1). 2013: 10–18. doi:10.1525/mp.2013.31.1.10.

Dent, Edward J. "The Musical Interpretation of Shakespeare on the Modern Stage." *The Musical Quarterly* 2, no. 4 (1916): 523–37. http://www.jstor.org/stable/737936.

Dupoux, Emmanuel., and Jacques Mehler. *Language, Brain, and Cognitive Development: Essays in Honor of Jacques Mehler*. Cambridge, Mass.: MIT Press, 2001.

Feld, Steven, and Aaron A. Fox. "Music and Language." *Annual Review of Anthropology* 23. (1994): 25–53. http://www.jstor.org/stable/2156005.

Fitch, W. Tecumseh. "Genes, Language, Cognition, and Culture: Towards Productive Inquiry." *Human Biology* 83, no. 2 (2011): 323–29. http://www.jstor.org/stable/41466738.

Gritten, Anthony. Review of *Music, Language, and Cognition: And Other Essays in the Aesthetics of Music* by Peter Kivy. *The Journal of Aesthetics and Art Criticism* 66, no. 3 (2008): 314–17. http://www.jstor.org/stable/40206354.

Heller, Jack J., and Maria B. Athanasulis. "Music and Language: A Learning Window from Birth to Age Ten." *Bulletin of the Council for Research in Music Education*, no. 153/154 (2002): 18–22. http://www.jstor.org/stable/40319135.

Jackendoff, Ray. 2009. "Parallels and Non-parallels Between Language and Music." Music Perception: An Interdisciplinary Journal 26, no. 3 (2009): 195–204. doi:10.1525/mp.2009.26.3.195.

Jeannin, Marc. 2008. "Organizational Structures in Language and Music." *The World of Music* 50, no. 1 (2008): 5–16. http://www.jstor.org/stable/41699805.

Kreutzer, Natalie J. "The Nature of Music Acquisition Among Selected Shona Speaking People of Rural Zimbabwe As Reflected in the Vocal Productions of Children from Birth to Seven Years." *Journal of Research in Music Education* 50, no. 3 (1997): 198–211. https://www.jstor.org/stable/3345706

McGowan, Rebecca W., and Andrea G. Levitt. 2011. "A Comparison of Rhythm in English Dialects and Music." *Music Perception: An Interdisciplinary Journal* 28, no. 3 (2011): 307–14. doi:10.1525/mp.2011.28.3.307

McGuire, Gary N. "How Arts Instruction Affects Reading and Language: Theory and Research." *The Reading Teacher* 37, no. 9 (1984): 835–39. http://www.jstor.org/stable/20198633.

Mitchell, Laura. "Popular Music." Popular Music, vol. 27, no. 3, 2008, pp. 521–522. JSTOR, JSTOR, www.jstor.org/stable/40212418.

Vanhandel, Leigh, and Tian Song. "The Role of Meter in Compositional Style in 19th Century French and German Art Song." *Journal of New Music Research* 39, no. 1 (2010): 1–11. doi:10.1080/09298211003642498.